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### Compartmentalized signaling in the lung

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Propositions belonging to the dissertation

## **Compartmentalized signaling in the lung**

*A-kinase anchoring proteins as novel drug targets  
for chronic obstructive pulmonary disease*

- 1) One needs to network to study signaling pathways.
- 2) Changing the composition of A-kinase anchoring proteins (AKAPs) in airway cells may affect the development of chronic obstructive pulmonary disease (this thesis).
- 3) Pulmonary inflammatory responses induced by cigarette smoke have an intrinsic inhibitory mechanism coordinated by AKAPs (this thesis).
- 4) The coordination of the  $\beta_2$ -adrenoceptor cycle by AKAPs varies between cell types (this thesis).
- 5) Cigarette smoking can change  $\beta_2$ -agonist responsiveness depending on the SNPs in one's AKAP genes (this thesis).
- 6) Pharmacological targeting of compartmentalized signaling increases the effectiveness of existing therapeutic options.
- 7) Researching compartmentalization needs thinking both inside and outside the box in order to understand the box.
- 8) **不怕慢，就怕站** – Be not afraid of going slowly, be afraid only of standing still – Chinese proverb.
- 9) Studying one disease makes you valuable for those who study other ones.
- 10) Creating new scientific concepts is like making art; it is often only fully appreciated after the creator stops making it.
- 11) Intrinsic disorder in A-kinase anchoring proteins increases their functionality, but decreases the possibility to functionally investigate this protein.
- 12) Paul Ehrlich's quote '*Corpora non agunt nisi fixate*' (1913) state that drugs will not act unless they are bound [to their receptor], but even when drugs are bound to their receptors they won't act unless their receptor and its downstream effectors are properly bound/anchored (this thesis).
- 13) Sinne en wille kinne folle tille. – Enjoying your work allows you to endure a lot of hardship. – Frisian proverb.